

VIDEO CASE REPORT

Pancreatic hydatid cyst diagnosed on EUS-guided FNA

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A 22-year-old woman presented with abdominal pain. Abdominal CT scan demonstrated a mass lesion in the pancreatic body (Fig. 1A). There was no lesion in the liver on CT scan (Fig. 1B). EUS showed a 50- × 35-mm cystic mass lesion containing numerous floating serpentine-like linear structures (Fig. 2; Video 1, available online at www.VideoGIE.org). EUS-guided FNA was performed with a 22-gauge needle.

Three milliliters of thick milky fluid were aspirated. Cytologic examination showed laminated membrane of a hydatid cyst (Fig. 3), confirming the diagnosis of pancreatic hydatid cyst. The results of serologic testing for hydatid cyst were negative. Albendazole 400 mg twice daily was started, and the patient became asymptomatic. After 3 months of albendazole therapy, the size of the lesion was significantly decreased on follow-up transabdominal US.

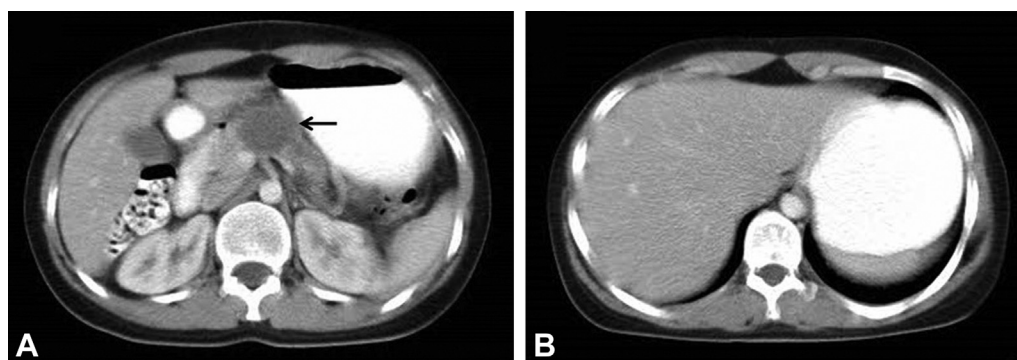


Figure 1. A, Abdominal CT scan demonstrating a mass lesion in the pancreatic body (*black arrow*). B, No cystic lesion is seen in the liver.

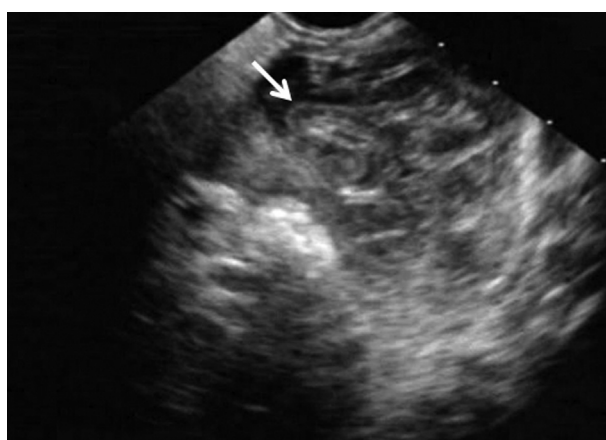


Figure 2. EUS image showing a cystic lesion containing numerous serpentine linear structures manifesting as sonographic water-lily sign (*white arrow*).

Written transcript of the video audio is available online at www.VideoGIE.org.

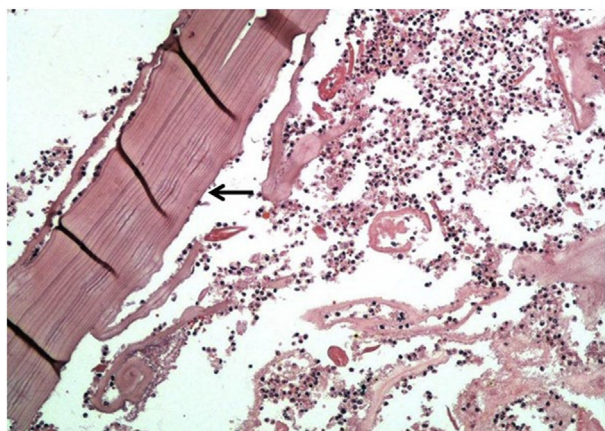


Figure 3. Cytologic view of cyst fluid showing acellular laminated membrane of the hydatid cyst (black arrow). Many inflammatory cells are seen in the background (H&E, orig. mag. $\times 150$).

Hydatid disease is a public health problem in sheep farming regions of the world, including all Mediterranean countries, Central Asia, West Africa, and Australia. Hydatid cystic echinococcosis is caused by the larval stage of the tapeworm *Echinococcus granulosus*. The hydatid cyst consists of a periparasitic fibrous tissue layer, known as the pericyst, and the endocyst. The endocyst is further subdivided into the outer acellular laminated membrane and the inner germinal layer, which gives rise to cyst fluid and secondary, smaller (daughter) cysts. The laminated membrane may detach from the cyst wall and float within the cyst fluid, manifesting as a water-lily sign on US image (Fig. 2).

The liver is the most common site of hydatid disease, and it may involve the biliary system through a cystobiliary fistula.^{1,2} However, hydatid disease of the pancreas is an exceedingly rare clinical condition.

The diagnosis of hydatid cyst is generally made with appropriate imaging findings and positive results of serologic testing. Diagnostic FNA can be performed in equivocal cases with negative serologic test results. The

potential adverse effects during FNA of hydatid cyst include spillage of hydatid materials, minor allergic reactions, or rarely, anaphylactic reaction.³ In most series, patients have tolerated the FNA procedure well without any adverse events.⁴

DISCLOSURE

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